

**Commonwealth of Kentucky
Natural Resources and Environmental Protection Cabinet
Department for Environmental Protection
Division for Air Quality
803 Schenkel Lane
Frankfort, Kentucky 40601
(502) 573-3382**

**STATE ORIGIN
AIR QUALITY PERMIT**

Permittee Name: Louisville Forge and Gear Works, LLC
Mailing Address: 596 Triport Road, Georgetown, Kentucky 40324

Source Name: Louisville Forge and Gear Works, LLC
Mailing Address: Same as above
Source Location: Same as above

AFS Plant ID #: 21-209-00043
SIC Code: 3462

Region: Frankfort
County: Scott

Permit Number: S-00-040
Log Number: G309
Permit Type: Minor, Construction/Operating

Issuance Date: May 12, 2000
Expiration Date: May 12, 2005

**John E. Hornback, Director
Division for Air Quality**

SECTION A - PERMIT AUTHORIZATION

Pursuant to a duly submitted application, which was determined to be complete on January 18, 2000, the Kentucky Division for Air Quality hereby authorizes the construction and operation of the equipment described herein in accordance with the terms and conditions of this permit. This permit has been issued under the provisions of Kentucky Revised Statutes Chapter 224 and regulations promulgated pursuant thereto.

The permittee shall not construct, reconstruct, or modify any affected facilities without first having submitted a complete application and receiving a permit for the planned activity from the permitting authority, except as provided in this permit or in the Regulation 401 KAR 50:035, Permits.

Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by this Cabinet or any other federal, state, or local agency.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

GROUP REQUIREMENTS: **Group 1**

Emission Point	Company Number	Description	Pollutants
25	(94,95)	<u>Normalizers</u> – 2 Holcroft model, natural gas fueled normalizers each with a rated capacity of 7.16 MMBtu/hr. A total of 14.32 MMBtu/hr. Materials input per unit: 2.25 tons/hr steel ring gears.	<ul style="list-style-type: none"> • PM • PM10 • CO • NO_x • SO₂ • VOC • TOC
27	(96,97)	<u>Draw/Heat Treating Furnaces</u> – 2 Holcroft model, natural gas fueled furnaces each with a rated capacity of 7.16 MMBtu/hr. A total of 14.32 MMBtu/hr. Materials input per unit: 1 ton/hr steel crankshafts.	
36	(105)	<u>Die Heat Treat Furnace</u> – Lindberg #1306 model 488448-G125, natural gas fueled furnace with a rated capacity of 2.798 MMBtu/hr. Materials input: 500 lbs/hr steel dies.	
55	(127-130,141-143)	<u>Safety Kleen Degreasers</u> – Four 23"x35"x8.5" tanks: die shop and fork lift repair (each 180 gals/yr), maintenance, and saw & shear (each 240 gals/yr). two 23"x34"x7.5" tanks: saw & shear (240 gals/yr), and MRO (120 gals/yr). And one 20"x36"x11.5" tank: forge press area (420 gals/yr). Materials input for all tanks: 1620 gals/hr Safety Kleen 150 premium solvent part #6605. Construction commenced: 1998.	<ul style="list-style-type: none"> • VOC • TOC

APPLICABLE REGULATIONS:

None.

1. Operating Limitations: N/A

2. Emission Limitations: N/A

3. Testing Requirements: N/A

4. Monitoring Requirements:

The permittee shall monitor the daily hours of operation and the total daily input of all raw materials and fuels of each process unit and heater at each emission point.

5. Recordkeeping Requirements:

Daily records shall be maintained of the total input of all raw materials, fuels, and hours of operation of each process unit and heater at each emission point.

6. Reporting Requirements: N/A

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS: **Group 2**

Emission Point	Company Number	Description	Pollutants
01	(2,4,6,7)	<u>Truck Dock Heaters</u> – Natural gas fueled heaters with the following rated capacity (each): two 2 MMBtu/hr, one 1.5 MMBtu/hr, and one 2.5 MMBtu/hr. A total of 8 MMBtu/hr. Construction commenced: 1973.	<ul style="list-style-type: none"> • PM • PM10 • CO • NO_x • SO₂ • VOC • TOC
02	(9-16)	<u>Heating & Ventilating Units</u> – Natural gas fueled heaters with the following rated capacity (each): six 3 MMBtu/hr, one 1.75 MMBtu/hr, and one 2 MMBtu/hr. A total of 21.75 MMBtu/hr. Construction commenced: 1973.	
03	(21-26,28-35)	<u>Make Up Air Units</u> – Natural gas fueled heaters with the following rated capacity (each): three 2 MMBtu/hr, five 3 MMBtu/hr, four 2.85 MMBtu/hr, one 2.43 MMBtu/hr, and one 0.805 MMBtu/hr. A total of 35.635 MMBtu/hr. Construction commenced: 1973, 1979 (30-35).	
04	(43-73,138)	<u>Unit Heaters</u> – Natural gas fueled heaters with the following rated capacity (each): four 0.105 MMBtu/hr, twelve 0.8 MMBtu/hr, four 0.5 MMBtu/hr, seven 0.4 MMBtu/hr, seven 0.3 MMBtu/hr, and one 0.092 MMBtu/hr. A total of 16.112 MMBtu/hr. Construction commenced: 1979, 1996 (138).	
05	(135)	<u>Steel Bar Pre-Heater for 1000-Ton Shear</u> – Natural gas fueled with rated capacity of 15.225 MMBtu/hr. Construction commenced: July 1998.	
06	(136)	<u>Steel Bar Pre-Heater for 1300-Ton Shear</u> – Natural gas fueled with rated capacity of 7.392 MMBtu/hr. Construction commenced: September 1996.	
23	(87)	<u>Steel Bar Pre-Heater for 1300-Ton Shear</u> – Natural gas fueled with rated capacity of 7.16 MMBtu/hr. <i>In reserve, not in operation.</i>	

APPLICABLE REGULATIONS:

401 KAR 59:015, New indirect heat exchangers.

1. Operating Limitations:

N/A

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**GROUP REQUIREMENTS:** **Group 2 (continued)****2. Emission Limitations:**

1. For liquid and gaseous fuels combustion in each heater and each emission point with a total heat input capacity of 10 million Btu/hour or less:
 - a. The particulate emission shall not exceed 0.56 pound/million Btu of actual heat input, b. The sulfur dioxide emission shall not exceed 3.0 pounds/million Btu of actual heat input.
2. For liquid and gaseous fuels combustion in each heater and each emission point with a total heat input capacity of more than 10 million Btu/hour but less than 250 million Btu/hour:
 - a. The particulate emission shall not exceed the standard calculated by the following equation:
$$E = 0.9634 \cdot THIC^{-0.2356}$$
 - b. The sulfur dioxide emission shall not exceed the standard calculated by the following equation:
$$E = 7.7223 \cdot THIC^{-0.4106}$$

where E is in pounds/million Btu actual heat input, and $THIC$ is the total heat input capacity in millions of Btu/hour.
3. Visible emissions shall not exceed 20% opacity, as determined with Reference Method 9, Appendix A of 40 CFR 60.

COMPLIANCE DEMONSTRATION:

While burning natural gas, each unit is considered to be in compliance with particulate matter, sulfur dioxide and opacity standards.

3. Testing Requirements:

N/A

4. Monitoring Requirements:

To provide reasonable assurance that the opacity, particulate matter and sulfur dioxide emission limitations are being met, the permittee shall monitor the daily hours of operation and the daily amounts and types of process fuels combusted in each heater at each emission point.

5. Recordkeeping Requirements:

Daily records shall be maintained of the total fuel input and hours of operation of each heater at each emission point.

6. Reporting Requirements:

Any exceedance of the opacity, particulate or sulfur dioxide emission limits as stated in this permit shall be reported to the Division within 30 days of the exceedance as specified in the General Conditions Section C.1.b.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS: **Group 3**

Emission Point	Company Number	Description	Pollutants
07	(134)	<u>Double End Metal Working Machine</u> Werag model 122 end working machine. Materials input: 14.7 tons/hr steel crankshafts, and 0.134 lb/hr coolant. Construction commenced: October 15, 1999.	PM, PM10, Chromium (Cr), Manganese (Mn), Nickel (Ni), Phosphorus (P), VOC, TOC, Hexylene glycol.
10	(74,139)	<u>EDM Machines</u> 12 EDM machines numbered 1 to 12. Models include Hausermann, Easco, Elox, Ingersol, and Okamoto. Materials input: 312 lbs/hr die steels and graphite electrodes, and 298.7 ft ³ /hr EDM fluid. Construction commenced: 1996, 1997 (EDM machine #3).	PM, PM10, Cr, Mn, Ni, P, VOC, TOC.
11	(75)	<u>Die Grinding / Polishing Tables</u> 3 die polishing tables, and 7 grinders. Models include Gallmeyer Livingston, Hammonds, Pratt & Whitney, Black Diamond, and Boyer Schultz. Materials input: 195 lbs/hr die steels and cutting tools. Construction commenced: 1996.	PM, PM10, Cr, Mn, Ni, P.
12*	(76)	<u>Electrode Machining</u> Sharnoia CNC vertical mill model SDC 52D with a 99.9% efficient Industrial Filters Co. model DB-40 deep bed filter. Materials input: 41 lbs/hr solid graphite. Construction commenced: 1996.	PM, PM10.
13	(77)	<u>Dual Snag Grinder</u> Hisey-Wolf model. Materials input: 1.25 tons/hr steel billets and forgings. Construction commenced: 1997.	PM, PM10, Cr, Mn, Ni, P.
14	(78)	<u>Crankshaft Shot Blast</u> Blast Cleaning Products model with 99.5% efficient Farr Tenkay Mark IV 7000-16D-T3 cartridge filter. Materials input: 14.82 tons/hr steel crankshafts and shots. Construction commenced: 1996.	PM, PM10, Mn.
15	(79)	<u>Super 22 Wheelbrator</u> Wheelbrator Super Tumblast model with 99.5% efficient Farr Tenkay Mark IV 3000-16D-T3 cartridge filter. Materials input: 12.98 tons/hr non-crank steel forgings and steel shots. Construction commenced: 1998.	PM, PM10, Cr, Mn, Ni, P.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS: Group 3 (continued)

Emission Point	Company Number	Description	Pollutants
16	(80)	<u>Die Shop Shot Blast Machine</u> Goff 60" model table blast machine with 99.5% efficient Geo Fisher model 816 cartridge filter dust collector. Materials input: 1.515 tons/hr steels dies and shots. Construction commenced: 1996.	PM, PM10, Cr, Mn, Ni, P.
17	(81)	<u>Super 28 Wheelbrator</u> Wheelbrator Super Tumbblast II model with 99.5% efficient Farr Tenkay Mark IV 8000-8D-T3 cartridge filter. Materials input: 16.52 tons/hr non-crank steel forgings and steel shots. Construction commenced: 1996.	PM, PM10, Cr, Mn, Ni, P.
18	(82)	<u>Toyota Crankshaft Shot Blast</u> Blast Cleaning Products model ST-1214 with 99.5% efficient Farr Tenkay Mark IV 7000-16D-T3 cartridge filter. Materials input: 12.81 tons/hr steel crankshafts and shots. Construction commenced: 1996.	PM, PM10, Cr, Mn, Ni, P.
19	(140)	<u>Shot Blast Cleaning Machine 34</u> Blast Cleaning Products model with 99.5% efficient Farr Tenkay Mark IV 7000-16D-T3 cartridge filter. Materials input: 16.71 tons/hr steel forgings and shots. Construction commenced: 1995.	PM, PM10, Cr, Mn, Ni, P.
20	(83,84)	<u>Grinders, Polishing Tables, Abrasive Saw</u> 2 grinders, 7 die polishing tables, and a Dewalt ME2 radial arm abrasive cut-off saw. Materials input: 390 lbs/hr steel dies and tools. Construction commenced: 1996.	PM, PM10, Cr, Mn, Ni, P.
21	(106-108)	<u>Grinding Benches</u> 3 Wolverine model #1-15B down draft grinding benches. Materials input: 195 lbs/hr steel dies. Construction commenced: 1996.	PM, PM10, Cr, Mn, Ni, P.
24	(137,149)	<u>Auto Facing and Centering Machine</u> 1 HEY model, and 1 Geo Fisher model ZM160 machines. Materials input: 10.125 tons/hr steel crankshafts, and 0.365 lb/hr coolant/water mixture. Construction commenced: 1999.	PM, PM10, Cr, Mn, Ni, P, Hexylene glycol.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**GROUP REQUIREMENTS: Group 3 (continued)**

Emission Point	Company Number	Description	Pollutants
42	(111,112)	<u>Surface Grinders</u> 1 Mattison model, and 1 Thompson model surface grinders. Materials input for each grinder: approximately 6.67 pounds/hr die stock steels, carbide tip inserts, and 0.79 pounds/hr water based lubricant. Construction commenced: 1997.	PM, PM10, Cr, Mn, Ni, P.
53*	(147)	<u>A & B 8000-Ton Presses</u> Dual model HMPT-96 with 99.9% efficient air scrubber. Materials input: 872 pounds/hr water base graphite, and 292.12 lbs/hr synthetic die lube smoke. Construction commenced: 1996.	PM, PM10.
54*	(148)	<u>C & D 6000-Ton Presses</u> Dual model HMPT-96 with 99.9% efficient air scrubber. Materials input: 89.96 pounds/hr water base graphite, and 30.58 lbs/hr synthetic die lube smoke. Construction commenced: 1996.	PM, PM10.

* Only 401 KAR 59:010, New process operations, applies.

APPLICABLE REGULATIONS:

401 KAR 59:010, New process operations.

401 KAR 63:060, List of hazardous air pollutants, petitions process, lesser quantity designations, and source category list.

1. Operating Limitations:

N/A

2. Emission Limitations:

1. Visible emissions shall not equal or exceed 20% opacity, as determined by Reference Method 9 of Appendix A to 40 CFR 60, filed by reference in 401 KAR 59:010.
2. Hourly particulate emissions, as determined by Reference Method 5 of Appendix A to 40 CFR 60, shall not exceed the limit calculated by the following equation:

$$E = 3.59 \cdot P^{0.62}$$

where E is in pounds/hour, and P is the process weight rate (total weight of all materials introduced into the emission unit, which may cause particulate matter emissions) in tons/hour.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS: **Group 3 (continued)**

2. Emission Limitations : (continued)

COMPLIANCE DEMONSTRATION:

1. To provide reasonable assurance that the visible emission limitations are being met, the permittee shall perform the following:
 - a. Qualitative observations of the visible emissions shall be made weekly and a log of the observations shall be maintained to include the following:
 - i. Any air emissions (except for water vapor) which were visible from stack or vent.
 - ii. All emission points from which visible emissions occurred, and
 - iii. Whether the visible emissions were normal for the process.
 - b. If visible emissions from the stack are perceived or believed to exceed the applicable standard, the permittee shall initiate an inspection, and make any necessary repairs.
2. To provide reasonable assurance that the particulate matter emission limitations are being met, the permittee shall monitor the amounts and types of raw materials processed. Particulate emissions from each emission point shall be calculated as follows:
Particulate emissions, in pounds/hour = $\sum [(Maximum\ process\ weight\ rate\ of\ each\ raw\ material,\ in\ tons/hour) \times (KYEIS\ particulate\ emission\ factor\ for\ the\ raw\ material,\ in\ pounds/ton) \times (1 - particulate\ control\ efficiency,\ in\ \% / 100)]$
Particulate emissions, in tons/year = (Particulate emissions, in pounds/hour) x (Annual hours of operation/year) / (2000 pounds/ton)

3. Testing Requirements:

N/A

4. Monitoring Requirements:

The permittee shall monitor the daily hours of operation and the total daily input of all raw materials of each process unit at each emission point.

5. Recordkeeping Requirements:

Daily records shall be maintained of the total input of all raw materials and hours of operation of each process unit at each emission point.

6. Reporting Requirements:

Any exceedance of the opacity or particulate emission limits as stated in this permit shall be reported to the Division within 30 days of the exceedance as specified in the General Conditions Section C.1.b.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS: **Group 4**

Emission Point	Company Number	Description	Pollutant	Allowable
22	(86)	<u>Paint Booth</u> Paint booth for fork lifts, and small equipment. Materials input: 1 gal/hr GS-769 Duralux enamel, and 0.5 pint/hr MEK Klean Strip solvent. Construction commenced: 1979.	1. PM, PM10 2. Benzene 3. Toluene 4. Methyl ethyl ketone (MEK)	1. See Emission limitations in Group 3. <u>lbs/hr:</u> <u>TPY:</u> 2. 0.007654, 0.03352 3. 19.52, 85.8 4. 30.7, 134.5
24	(88-93)	<u>Auto Facing and Centering Machine</u> 6 machines: 2 HEY model, 2 Balance Engineering, and 2 Seneca Falls. Materials input for all machines: 40/hr steel crankshafts, and 02 lb/hr coolant/water mixture. Construction commenced: 1996.	1. PM, PM10 2. Hexylene glycol	1. See Emission limitations in Group 3. <u>lbs/hr:</u> <u>TPY:</u> 2. 0.0224 0.098112
40	(109)	<u>Hand Disc Grinding</u> Miscellaneous air and electric hand disc grinding operations throughout the plant. Materials input: max. 27.5 tons/hr steel forgings, and max. 1.76 lbs/hr grinding discs.	1. PM, PM10 2. Mn 3. P 4. Ni 5. Cr 6. Molybdenum, Mo 7. Tin, Sn 8. Vanadium, V 9. Lead, Pb 10. Arsenic, As 11. Antimony, Sb 12. Aluminum, Al 13. Zirconium, Zr	1. See Emission limitations in Group 3. <u>lbs/hr:</u> <u>TPY:</u> 2. 0.18276 0.8 3. 0.00406 0.018 4. 0.04056 0.18 5. 0.36412 1.595 6. 0.4056 1.78 7. 0.08114 0.355 8. 0.02418 0.106 9. 0.00608 0.027 10. 5.103E-5 2.2E-4 11. 1.276E-4 5.6E-4 12. 0.5204 2.28 13. 1.276E-3 5.59E-3
41	(110)	<u>Miscellaneous Grinders</u> 30 units of pedestal and bench type grinders. Materials input: approximately 5 lbs/hr steel forgings and cutters, and 0.41 lb/hr grinding wheels.	1. PM, PM10 2. Mn 3. P 4. Ni 5. Cr 6. Mo 7. Sn 8. V 9. Pb 10. As 11. Sb 12. Al	

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS: **Group 4 (continued)**

Emission Point	Company Number	Description	Pollutant	Allowable
44	(113)	<u>Die Repair Welders</u> Lincoln and Miller models welders. Materials input: 500 lbs/hr tool die steel, 2.6 lbs/hr welding rod, and 1.08 lbs/hr welding wire. Construction commenced: 1996.	1. PM, PM10 2. Cr 3. Mn 4. Ni 5. Tin oxide, SnO 6. Mo 7. V	1. See Emission limitations in Group 3. lbs/hr: <u>TPY:</u> 2. 0.36412 1.595
45	(114)	<u>Forge Repair</u> Linde and Airco models welders. Materials input: approximately 1000 lbs/hr steel forgings, 3 lbs/hr welding rod, and 0.29 lb/hr welding wire. Construction commenced: 1996.	1. PM, PM10 2. Cr 3. Mn 4. Ni 5. Tin oxide, SnO 6. Mo 7. V 8. Copper, Cu	3. 0.18276 0.8 4. 0.04056 0.18 5. 0.08114 0.355 6. 0.4056 1.78 7. 0.02418 0.106 8. 0.05204 0.23
46	(115)	<u>Maintenance Weld Fabrication</u> 3 Lincoln and 3 Airco models welders. Materials input: approximately 225 lbs/hr steel shapes, and 0.25 lb/hr/welder welding rod. Construction commenced: 1996.	1. PM, PM10 2. Mn	1. See Emission limitations in Group 3. lbs/hr: <u>TPY:</u> 2. 0.18276 0.8
47	(116)	<u>Maintenance General Factory Repair</u> Airco electric models welders. Materials input: approximately 225 lbs/hr steel shapes, and 0.25 lb/hr/welder welding rod. Construction commenced: 1996.	3. Titanium dioxide, TiO ₂ 4. Aluminum oxide, AlO	3. 1.276E-3 5.59E-3 4. 0.5204 2.28
48	(118)	<u>2500-Ton Ajax Press</u> #25C Ajax 2500-ton forge press. Materials input: 2.3 tons/hr steel billets, 0.92 lb/hr water base graphite die lube, or 30.82 lbs/hr synthetic lubricate die lube. Construction commenced: 1996.	Per press: 1. PM, PM10	Per press: 1. See Emission limitations in Group 3.
49	(119)	<u>4000-Ton National Press</u> 4000-ton Maxi National forge press. Materials input: 4.8 tons/hr steel billets, 1.92 lb/hr water base graphite die lube, or 64.32 lbs/hr synthetic lubricate die lube. Construction commenced: 1996.	2. Carbon black	lbs/hr: <u>TPY:</u> 2. 0.1822 0.8

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS: Group 4 (continued)

Emission Point	Company Number	Description	Pollutant	Allowable
50	(120,121)	<u>6000-Ton National Presses</u> 2 6000-ton Maxi National forging presses. Materials input per press: 7.35 tons/hr steel billets, 44.98 lb/hr water base graphite die lube, or 15.29 lbs/hr synthetic lubricate die lube. Construction commenced: June 1995, 1996 (120).	Per press: 1. PM, PM10 2. Carbon black	Per press: 1. See Emission limitations in Group 3. <u>lbs/hr:</u> <u>TPY:</u> 2. 0.1822 0.8
51	(122,123)	<u>8000-Ton National Presses</u> 2 8000-ton Maxi National forging presses. Materials input per press: 10.9 tons/hr steel billets, 4.36 lb/hr water base graphite die lube, or 146.06 lbs/hr synthetic lubricate die lube. Construction commenced: June 1995, 1996 (122).		
52	(124)	<u>1600-Ton National Presses</u> 1600-ton Maxi National forge presses. Materials input per press: 1.6 tons/hr steel billets, 0.64 lb/hr water base graphite die lube, or 21.44 lbs/hr synthetic lubricate die lube. Construction commenced: 1996.		

APPLICABLE REGULATIONS:

401 KAR 59:010, New process operations.

401 KAR 63:021, Existing sources emitting toxic air pollutants.

1. Operating Limitations:

N/A

2. Emission Limitations:

The permittee shall not emit or cause to emit each air pollutant in excess of its designated allowable in the table above.

COMPLIANCE DEMONSTRATION:

To provide reasonable assurance that the emission limitations of toxic air pollutants are being met, the permittee shall monitor the amounts and types of raw materials processed. Each of the toxic air pollutants (except for PM and PM10) emitted from all emission points in Group 4 shall be designated as toxic pollutant "n". The calculation of n emissions shall be as follows:

Emissions of n, in pounds/hour = $\sum [(Maximum\ process\ weight\ rate\ of\ each\ raw\ material\ containing\ n,\ in\ tons/hour) \times (KYEIS\ emission\ factor\ of\ n,\ in\ pounds/ton) \times (1 - n\ control\ efficiency,\ in\ \% / 100)]$.

Emissions of n, in tons/year = (n emissions, in pounds/hour) x (Annual hours of operation/year) / (2000 pounds/ton)

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS: **Group 4 (continued)**

3. Testing Requirements:

N/A

4. Monitoring Requirements:

The permittee shall monitor the daily hours of operation and the total daily input of all raw materials of each process unit at each emission point.

5. Recordkeeping Requirements:

Daily records shall be maintained of the total input of all raw materials and hours of operation of each process unit at each emission point.

6. Reporting Requirements:

Any exceedance of the opacity, particulate or toxic emission limits as stated in this permit shall be reported to the Division within 30 days of the exceedance as specified in the General Conditions Section C.1.b.

SECTION C - INSIGNIFICANT ACTIVITIES

The following listed activities have been determined to be insignificant activities for this source pursuant to Regulation 401 KAR 50:035, Section 5(4). While these activities are designated as insignificant the permittee must comply with the applicable regulation and some minimal level of periodic monitoring may be necessary.

<u>Description</u>	<u>Generally Applicable Regulation</u>
1. (150, 151) Two dust collector/cartridge filter-coil repair.	401 KAR 59:010
2. (131) Gasoline storage tanks – 300-gallon capacity	401 KAR 63:060
3. (132) #2 Diesel fuel storage tanks – 300-gallon capacity	N/A
4. Waste oil storage tank – 4000-gallon capacity	N/A
5. (117) Laboratory vent	401 KAR 63:060
6. (133) Cooling tower – induced draft, cross-flow	40 CFR 63 Subpart Q

SECTION D - GENERAL CONDITIONS

A. Administrative Requirements

1. The permittee shall comply with all conditions of this permit. Noncompliance shall be (a) violation(s) of State Regulation 401 KAR 50:035, Permits, Section 7(3)(d) and is grounds for an enforcement action including but not limited to the termination, revocation and reissuance, or revision of this permit.
2. This permit shall remain in effect for a fixed term of five (5) years following the original date of issue. Permit expiration shall terminate the source's right to operate unless a timely and complete renewal application has been submitted to the Division at least six months prior to the expiration date of the permit. Upon a timely and complete submittal, the authorization to operate within the terms and conditions of this permit, including any permit shield, shall remain in effect beyond the expiration date, until the renewal permit is issued or denied by the Division. [401 KAR 50:035 Section 12]
3. Any condition or portion of this permit which becomes suspended or is ruled invalid as a result of any legal or other action shall not invalidate any other portion or condition of this permit. [401 KAR 50:035 Section 7(3)(k)]
4. The permit contained herein may be revised, revoked, reopened, reissued, or terminated for cause. The filing of a request by the permittee for any permit revision, revocation, reissuance, or termination, or of a notification of a planned change or anticipated noncompliance shall not stay any permit condition. [401 KAR 50:035 Section 7(3)(f)]
5. The permit does not convey property rights or exclusive privileges. [401 KAR 50:035 Section 7(3)(g)]
6. The permit shall be subject to suspension at any time the permittee fails to pay all fees within 90 days after notification as specified in State Regulation 401 KAR 50:038, Air emissions fee. [401 KAR 50:035 Section 7(3)(h)]
7. Nothing in this permit shall alter or affect the authority of the U.S. EPA to impose emergency orders pursuant to Federal Statute 42 USC 7603, Emergency orders. [401 KAR 50:035 Section 8(3)(a)]
8. Nothing in this permit shall alter or affect the liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance. [401 KAR 50:035 Section 8(3)(b)]
9. Nothing in this permit shall alter or affect the authority of U.S. EPA to obtain information pursuant to Federal Statute 42 USC 7414, Inspections, monitoring, and entry. [401 KAR 50:035 Section 7(2)(b)5]
10. Permit S-95-070 dated March 31, 1995 is hereby null and void.

SECTION D - GENERAL CONDITIONS (CONTINUED)

B. Recordkeeping Requirements

1. Records of all required monitoring data and support information, including calibrations, maintenance records, and original strip chart recordings, and copies of all reports required by the Division for Air Quality, shall be retained by the permittee for a period of five years and shall be made available for inspection upon request by any duly authorized representative of the Division for Air Quality. [401 KAR 50:035 Section 7(1)(d)2 and 401 KAR 50:035 Section 7(2)(c)]
2. The permittee shall perform compliance certification and recordkeeping sufficient to assure compliance with the terms and conditions of the permit. Documents, including reports, shall be certified by a responsible official pursuant to State Regulation 401 KAR 50:035, Permits, Section 6.

C. Reporting Requirements

1.
 - a. In accordance with the provisions of Regulation 401 KAR 50:055, Section 1 the owner or operator shall notify the Division for Air Quality's Frankfort Regional Office concerning startups, shutdowns, or malfunctions as follows:
 - i. When emissions during any planned shutdowns and ensuing startups will exceed the standards notification shall be made no later than three (3) days before the planned shutdown, or immediately following the decision to shut down, if the shutdown is due to events which could not have been foreseen three (3) days before the shutdown.
 - ii. When emissions due to malfunctions, unplanned shutdowns and ensuing startups are or may be in excess of the standards notification shall be made as promptly as possible by telephone (or other electronic media) and shall cause written notice upon request.
 - b. In accordance with the provisions of Regulation 401 KAR 50:035, Section 7(1)(e)2, the owner or operator shall promptly report deviations from permit requirements including those attributed to upset conditions (other than emission exceedances covered by Reporting Requirement condition 1 a) above) to the Division for Air Quality's Frankfort Regional Office.
2. The permittee shall furnish to the Division, in writing, information that the Division may request to determine whether cause exists for modifying, revoking, reissuing, or terminating this permit, or to determine compliance with this permit. [401 KAR 50:035, Section 7(2)(b)3e and 401 KAR Section 7(3)(j)]
3. Summary reports of any monitoring required by this permit shall be submitted to the Division's Frankfort Regional Office at least every six (6) months during the life of this permit, unless otherwise stated in this permit. The reports are due within 30 days after the end of each six month reporting period which commences on the initial issuance date of this permit. The permittee may shift to semi-annual reporting on a calendar year basis upon approval of the regional office. If calendar year reporting is approved, the semi-annual reports are due January 30th and July 30th of each year. All reports shall be certified by a responsible official pursuant to Section 6(1) of Regulation 401 KAR 50:035, Permits. All deviations from permit requirements shall be clearly identified in the reports.

SECTION D - GENERAL CONDITIONS (CONTINUED)

D. Inspections

1. In accordance with the requirements of Regulation 401 KAR 50:035, Permits, Section 7(2)(c) the permittee shall allow the Cabinet or an authorized representative to perform the following:
 - a. Enter upon the premises where a source is located or emissions-related activity is conducted, or where records are kept;
 - b. Have access to and copy, at reasonable times, any records required by the permit:
 - i. During normal office hours, and
 - ii. During periods of an emergency when prompt access to records is essential to proper assessment by the Cabinet;
 - c. Inspect, at reasonable times, any facilities, equipment (including monitoring and pollution control equipment), practices, or operations required by the permit. Reasonable times shall include, but are not limited to the following:
 - i. During all hours of operation at the source,
 - ii. For all sources operated intermittently, during all hours of operation at the source and the hours between 8:00 a.m. and 4:30 p.m., Monday through Friday, excluding holidays, and
 - iii. During an emergency; and
 - d. Sample or monitor, at reasonable times, substances or parameters to assure compliance with the permit or any applicable requirements. Reasonable times shall include, but are not limited to the following:
 - i. During all hours of operation at the source,
 - ii. For all sources operated intermittently, during all hours of operation at the source and the hours between 8:00 a.m. and 4:30 p.m., Monday through Friday, excluding holidays, and
 - iii. During an emergency.

E. Emergencies/Enforcement Provisions

1. The permittee shall not use as defense in an enforcement action, the contention that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance [401 KAR 50:035 Section 7(3)(e)].
2. Pursuant to State Regulation 401 KAR 50:035, Permits, Section 9, an emergency shall constitute an affirmative defense to an action brought for the noncompliance with the technology-based emission limitations if the permittee demonstrates through properly signed contemporaneous operating logs or other relevant evidence that:
 - a. An emergency occurred and the permittee can identify the cause of the emergency;
 - b. The permitted facility was at the time being properly operated;
 - c. During an emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and
 - d. The permittee notified the Division as promptly as possible and submitted written notice of the emergency to the Division within two working days after the time when emission limitations were exceeded due to the emergency if the notice met the requirement of State Regulation 401 KAR 50:035, Permits, Section 7(1)(e)2, and included a description of the emergency, steps taken to mitigate emissions, and corrective actions taken.

SECTION D - GENERAL CONDITIONS (CONTINUED)

3. Emergency provisions listed in General Condition E.2 are in addition to any emergency or upset provision contained in an applicable requirement.
4. In an enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof [401 KAR 50:035 Section 9(3)].

F. Compliance

1. Permit Shield - Except as provided in State Regulation 401 KAR 50:035, Permits, compliance by the affected facilities listed herein with the conditions of this permit shall be deemed to be compliance with all applicable requirements identified in this permit as of the date of the issuance of this permit.
2. Periodic testing or instrumental or non-instrumental monitoring, which may consist of record keeping, shall be performed to the extent necessary to yield reliable data for purposes of demonstration of continuing compliance with the conditions of this permit. For the purpose of demonstration of continuing compliance, the following guidelines shall be followed:
 - a. Pursuant to State Regulation 401 KAR 50:055, General compliance requirements, Section 2(5), all air pollution control equipment and all pollution control measures proposed by the application in response to which this permit is issued shall be in place, properly maintained, and in operation at any time an affected facility for which the equipment and measures are designed is operated, except as provided by State Regulation 401 KAR 50:055, Section 1.
 - b. All the air pollution control systems shall be maintained regularly in accordance with good engineering practices and the recommendations of the respective manufacturers. A log shall be kept of all routine and non routine maintenance performed on each control device.
 - c. A log of the monthly raw material consumption and monthly production rates shall be kept available at the facility. Compliance with the emission limits may be demonstrated by computer program (spread sheets), calculations or performance tests as may be specified by the Division.
3. Pursuant to Regulation 401 KAR 50:035, Permits, Section 7(2)(b), the permittee shall annually complete and return a Compliance Certification Form (DEP 7007CC) to the Division's Frankfort Regional Office in accordance with the following requirements:
 - a. Identification of each term or condition of the permit that is the basis of the certification;
 - b. The compliance status regarding each term or condition of the permit;
 - c. Whether compliance was continuous or intermittent; and
 - d. The method used for determining the compliance status for the source, currently and over the reporting period, pursuant to 401 KAR 50:035, Section 7(1)(c),(d), and (e).
 - e. The certification shall be postmarked by the thirtieth (30) day following the applicable permit issuance anniversary date, or by January 30th of each year if calendar year reporting is approved by the regional office. Annual compliance certifications should be mailed to the following addresses:

Division for Air Quality
Frankfort Regional Office
643 Teton Trail
Frankfort, KY 40601

Division for Air Quality
Central Files
803 Schenkel Lane
Frankfort, KY 40601

SECTION D - GENERAL CONDITIONS (CONTINUED)**G. New Construction Requirements:**

For Emission Points 04(138), 05(135), 06(136), 07(134), 10(74), 10(139), 12(76), 19(140), 24(137), 24(149), 55(141), 55(142), 55(143), 53(147), and 54(148) :

1. Pursuant to State Regulation 401 KAR 50:035, Permits, Section 13(1), unless construction is commenced on or before 18 months after the date of issue of this permit, or if construction is commenced and then stopped for any consecutive period of 18 months or more, then the construction and operating authority granted by this permit for those affected facilities for which construction was not completed shall immediately become invalid. Extensions of the time periods specified herein may be granted by the Division upon a satisfactory request showing that an extension is justified.
2. Pursuant to State Regulations 401 KAR 50:035, Permits, Section 7(2)(d) and 401 KAR 59:005, General provisions, Section 3(1), within 30 days following construction commencement, within 15 days following start-up and attainment of maximum production rate, or within 15 days following the issuance date of this permit, whichever is later, the owner and/or operator of the affected facilities specified on this permit shall furnish to the Division's Frankfort Regional Office, with a copy to the Division's Frankfort Central Office, the following:
 - a. Date when construction commenced, (See General Condition G.1).
 - b. Start-up date of each of the affected facilities listed on this permit.
 - c. Date when maximum production rate was achieved, (See General Condition G.3.b).
3.
 - a. Pursuant to State Regulation 401 KAR 59:005, General provisions, Section 2(1), this permit shall allow operation for (*performance testing and/or compliance demonstration*) of the affected facilities listed herein. However, within 60 days after the issuance date of this permit or the date of achieving the maximum production rate at which the affected facilities will be operated, whichever is later, but no later than 180 days after initial start-up of such facilities, or the issuance date of this permit, whichever is later, the owner or operator shall demonstrate compliance to a duly authorized representative of the Division.
 - b. Pursuant to Section VII 2.(1) of the policy manual of the Division for Air Quality as referenced by Regulation 401 KAR 50:016, Section 1.(1), at least 30 days prior to the date of the required performance test(s), the permittee shall complete and return a Compliance Test Protocol (Form DEP 6027) to the Division's Frankfort office. The protocol form shall be utilized by the Division to determine if a pretest meeting is required. Pursuant to 401 KAR 50:045, Section 5, the Division shall be notified of the actual test date at least 10 days prior to the test(s).
 - c. Pursuant to Section VII.3 of the policy manual of the Division for Air Quality as referenced by Regulation 401 KAR 50:016, Section 1(1), results of performance test(s) required by the permit shall be submitted to the Division by the source or its representative within forty-five days after the completion of the fieldwork.
4. Operation of the affected facilities authorized by this permit shall not commence until compliance with applicable standards specified herein has been demonstrated in accordance with the requirements of State Regulation 401 KAR 50:035, Permits, Section 13(4).